BRUHAT BANGALORE MAHANAGARA PALIKE

Yelahanka Zone, Electrical Division

Name of Work:-Detailed Estime for Providing Energy Efficient Street Lights controls and Connecting Lines in Ward no 7.

Budget Head : P3110-14th Finance Grant works

Ward No. 06 **Estimate No:-** 02/17-18 **For Rs.** **5000000.00**

Sl No	SR Page & SL No	Description Of Work	Qty	Rate	Unit	Amount
	KPWD (Ele) S.R.2014-15					
1	4.35.3	LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part II.LED Streetlight 65watts	215	18720.00	each	4024800.00 ✓
2	108 /17.1.2	Supplying & fixing of 32 mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 or rail or RCC pole/wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires complete. Using 32mm dia G.I pipe	212	893.00 ✓	Each	189316.00 ✓

3	12/2.12.1	Wiring for lighting / power circuit using one of pvc insulated 1100v grade stranded aluminum unsheathed wire single core cable in open or concealed system of wiring as per IS - 694 : 19904sq mm	540	7.50	Per Mtr	4050.00
4	56/7.6.4	Supplying of 1.1KV grade Aerial Bunched Cable Stranded & Compacted Aluminum Phase Conductor, and Stranded Messenger Conductor with all aluminum Alloy, Phase Conductor is insulated with XLPE Compound, insulated Messenger with specified IS-14255:1995 & confirming to GTP of GROUP-A.2 X 25 + 1 X 25 SQ.MM	50	143.00	Per Mtr	7150.00
5	Bes SR	Stringing of 1.1kv LT Arial Bunched Cable, BESCOM SR	50	10.30	Per Mtr	515.00
6	2/1.1.3	Open Conduit Systeme: Supplying heavy gauge PVC conditpipe,,,,,,,,,, dia confirming to IS 2509 with suitable size bends,junction boxes, adhesibve paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall stone structure or plug incase of brick walls and cement plastering damaged portionusing heavy gauge saddles at an interval of 700mm using NF screws.c)32mm dia 2.5mm thick	30	100.00	Per Mtr	3000.00
7	49 /6.39.2	Supplying and fixing angle iron frame work fabricated out of M.S angle iron... and M.S. flat... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. a)50X50X6 mm	6	263.00	mtr	1578.00
8	34/5.11	Supplying and stringing of ACSR Conductor (6/2.59mm Al +1/2.59mm Steel).	1600	30.00	Per Mtr	48000.00
9	34/5.9.1	1.1 KV Pin Insulator	30	44.00	Each	1320.00
10		No. 8 Strain Insulator	20	14.00	Each	280.00
11	33/5.4.2	2 Pin 45x45x5mm -510mm	34	306.00	Each	10404.00
12	108/ 17.5	Fixing halogen/ metal hallide /SVL/IL/LED flood light fittings over existing pole/ wall ceiling including clamps bolts nuts and wiring using sitable capacity wires	199	176.00	Each	35024.00

13	AR	**Thiristor based single/ Three phase smart street light control and monitoring system** Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components.(Make :SANSAM)	5	51500.00	Nos	257500.00
		TOTAL				4582937.00
		KRIDL Charges Rs 9.1%				417047.27
		Mislenious				15.73
		Grand Total Rs				5000000.00

Administrative Sanction for Rs. 50:00 lakhs
Rupees Fifty- Lakhs - only
is accorded under head P-3110 14th Finance Commission Grant work
Registered as EE No. 04/2017-18 Subject to conditions contained in enclosed memo No. BBMP/EE(Ele)YN/AS/04/2017-18 Dt- 01-06-2017
Executive Engineer

CERTIFICATE :-

1. The place was inspected and the work is essential.
2. The provision made in the estimate are adequate and necessary and the work comes in the BBMP limit and is legitimate Charges on the BBMP funds.
3. The estimate is based on KPWD (Ele) S.R.2014-15 , BESCOM SR and Approved Rates.

K.N. Baddy
Asst. Engineer (Elec)

Asst. Exe.Engineer (Elec)
Sub-Division No.
Bruhat Bangalore Mahanagara Palike

30/5/17
EXECUTIVE ENGINEER (ELEC)
YELAHANKA DIVISION
BRUHAT BANGALORE MAHANAGARA PALIKE

Technical Sanction
Accorded For 50.00 lakhs
Head of A/C P-3110
CER NO : 45 Dt: 02/06/17

TA CE (YNK)